A. PURPOSE:

To define the method(s) in which evidence will be examined in the Trace Section.

(The Trace Examiner will use SOP-TR-05 Examination of Evidence as the primary SOP before continuing on to the types of evidence listed in the Trace SOP Manual)

B. RESPONSIBILITY:

Forensic Science Examiner from the Connecticut State Forensic Science Laboratory who have successfully completed their training to examine physical evidence.

C. SAFETY:

1. The appropriate measures for the proper handling of biohazardous materials, sharps instruments and chemicals will be used according to the Connecticut State Forensic Science Laboratory Safety Manual.
2. Lab coat and gloves will be worn when examining evidence. A mask will be worn when examining biological evidence.
3. Eye protection may be worn when working with glass, plastics or related materials.

D. PROCEDURE: Set up

1. The examiner will use his / her discretion to assess the probative value of the evidence; as well as, determine the types and extent of the examinations conducted.
2. The examiner will conduct sampling and sample selection of the evidence based on their knowledge, training and experience.
3. The examiner may deem it necessary to vary from a protocol based on the evidence submitted. If a variation in a procedure is necessary, the submitting agency will be notified.
4. The Standard Operating Procedures listed in the Trace Section Manual will be used for the examination of hair, fibers, paints, lamp filaments, tape, rope/cordage, fabric, physical matches, powders, screening test for blood and rapid immunoassay for human blood. Other types of evidence submitted to the Trace Section for analysis will use the procedure: "Analysis of Non-routine Evidence" as a guideline for examination.
5. The Trace Examiner will be notified that he /she have been assigned a case by the Trace Supervisor or their designee. The Examiner may use the JusticeTrax LIMS system to gather

addition information about a case that has been submitted to the Laboratory. The Examiner may use "printouts" from JusticeTrax LIMS as a method to organize their caseload.

6. The Trace Examiner will retrieve the evidence from the Evidence Receiving area on an as-needed basis. The Examiner may also receive evidence from another section of the Laboratory for examination.

7. Evidence is obtained from the Evidence Receiving Section of the Laboratory using a secure transfer in the JusticeTrax LIMS system using the examiner's secure PIN.

8. Evidence will be transferred within the Laboratory in the following manner:
-person to person using the JusticeTrax LIMS system
-person to location using the JusticeTrax LIMS system
-Laboratory cases, which were opened prior to 1998, may be transferred using a paper transfer sheet, since JusticeTrax Lims was not in effect at that time.

9. The assigned examiner should read the submitting agency request for examination to determine the circumstances of the crime and the types of examinations requested. The examiner should take care to note whether items of evidence must be examined by other sections of the Laboratory upon completion of Trace examinations. The examiner should determine which items are known samples and which are questioned samples. The examiner will contact the submitted agency to clarify any questions.

10. In the event there are multiple examination requests on submitted items of evidence, the trace examiner will determine the proper sequence to the analysis scheme based on the evidence submitted.

11. The document- "Instruments /Calibrations" (SOP-TR-03) will be referenced for instrument guidelines.

E. PROCEDURE: Documentation

1. The Trace Examiner will use an appropriate Quality Record Worksheet to record their examinations. (See Trace Quality Records)

2. The type of the packaging and seals will be documented on the worksheets.

3. Notes should reflect the contents of the packaging (Ex. color, size, style, damage, condition, etc.) Photographs and/or sketches may be used to supplement descriptions.

4. The examiner will ensure that the case number and their written initials will be on each page of the paperwork in the case jacket.

F. PROCEDURE: Evidence Processing

1. Different lab coats and clean gloves should be used when examining items from the victim and items from the suspect.

2. When possible, the examiner will leave the submitting agency's evidence seal intact when opening an item of evidence.

3. The examiner will place his / her initials on the packaging of the evidence.

4. Evidence submitted from the victim and the suspect should be examined in different areas. If this is not possible, then examination may take place on a different day.

5. Each item of evidence should be marked with the examiner's initials. If placing initials on an item of evidence would be detrimental to future analysis, no initials will be placed on the evidence. It will be noted on the worksheet that the item was not initialed at that time. In the event the item of evidence is too small to add initials, a note will be made on the worksheet that the initials could not be placed on the item.

6. A hangtag may be used in place initials on an item of evidence.

7. If the packaging contains more than one item then it may be sub-divided according to the scheme 1-1, 1-2, 1-3 in accordance with the Quality Manual.

8. Trace material may be removed using a forceps, using scraping method or using a tape roller-type method. Tape lifts, gel lifts and vacuuming may be used to collect trace material. The examiner may use one or more methods of trace material collection based on the evidence submitted. The examiner will use the best method available to collect trace material based on the evidence submitted. The examiner will document the method of collection in the case file.

9. Alternate light sources (ex.Crime-Lites) may be used to facilitate the collection of trace material or to locate a biological-type stain.

10. When appropriate, collect biological-type stains from the evidence. Also, samples for touch/wearer DNA analysis may be collected.

When collecting samples for "touch DNA" – a sterile swab(s) will be used. The swab will be moistened with a aqueous solutions that has been approved for use by the DNA Section. Swab the questions area(s) for "touch/ wearer" DNA. If necessary allow the swabs to dry in a hood or other appropriate drying location. The end(s) of the swab(s) will be placed in an appropriate storage contained and transferred to the DNA Section, freezer or other appropriate storage facility.

Samples of biological-type evidence may be swabbed, cut out, scraped or another suitable method of collection based on the evidence submitted and transferred to the DNA Section, another examiner or appropriate storage for further examination. The appropriate storage container will be used based on the type of evidence.

11. Trace material or samples removed from evidence will be given a sub-item number. All sub-item numbers generated by the Trace Section should begin with a "Z". For example, 1-Z1, 2-Z4, etc. These sub items will be created in the Justicetrax LIMS system.

12. Trace material or samples may be placed on glass microscope slides, in a paper fold or other appropriate storage container. The trace material or samples will be marked with the Laboratory case number, the item / sub-item number and examiner's initials.

13. Upon completion of examination, each item should be returned to its original packaging (when available) and sealed. The examiner's initials should be written across the seal. Additional packaging material may be used to secure an item of evidence.

14. A record will be placed in the case jacket if evidence is repackaged for return differently than the way it was received at the Laboratory.

G. PROCEDURE: Analysis / Comparison

1. If further examination is required, the examiner will use the Standard Operating Procedures for the Trace Section to conduct evidence analysis. (See Table of Contents for list of Procedures) At anytime the examiner may consult with a supervisor, another Trace Examiner or other Laboratory Examiner to determine the appropriate examinations which need to be conducted.

2. The Standard Operating Procedures listed in the Trace Section Manual will be used for the examination of hair, fibers, paints, lamp filaments, tape, rope/cordage, fabric, physical matches, powders, screening test for blood and rapid immunoassay for human blood. Other types of evidence submitted to the Trace Section for analysis will use the procedure: "Analysis of Non-routine Evidence" as a guideline for examination.

H. PROCEDURE: Storage of Evidence

1. When the evidence is in the custody of the examiner, it should be stored in the examiner's assigned secure evidence locker or the Trace/Instrumentation storage closet.

2. In the event the evidence is over-sized, evidence may be locked in the Trace Section on the bench with the approval of a supervisor or their designee.

3. Trace material and samples removed from evidence may be retained at the Laboratory in the appropriate area.

I. PROCEDURE: Report Writing

1. The trace examiner will assess the results of the examinations or comparisons conducted and generate a report, which reflects the results of the examinations and disposition of the samples.

2. The original report will be given to the Evidence Receiving Area to be maintained in the Main Case File.

3. A copy of the original report will be given to the submitting agency.

4. A copy of the original report will stay in the examiner's case jacket.

5. Reports may include photographs.

The examiner will consult with the co-signer to draft a report, which best reflects the results obtained.

J. REFERENCES:

1. SOP-GL-1 (Quality Manual)
2. SOP-GL-2 (Safety Manual)
3. SOP-GL-4 (LIMS / Justice Trax)
4. SOP-GL-5 (Ethics)